

**ARTICLE VI
DIVISION TWO**

Water Efficiency Requirements

Sec. 70-565. Purpose and intent.

It is the purpose and intent of this division to:

- (a) Assure that available water resources are put to reasonable beneficial uses and maximize the efficient use of the city water supply so as to potentially avoid unnecessary water supply expansion;
- (b) Reduce damage to publicly-owned streets and sidewalks caused by landscape runoff and overspray;
- (c) Increase safety on streets and sidewalks by reducing the potential for pooling and frozen water on such areas; and
- (d) Prevent pollution of streams, lakes, and other surface waters by reducing water runoff from landscaped areas.

This Division shall be liberally construed to effectuate this purpose and intent.

Sec. 70-566. Definitions.

City Water means potable water supplied through pipes by the City to Users.

Director means the Director of the City of Durham's Department of Water Management or his/her designee.

Drip Irrigation means the application of City water to the ground through drip emitter devices emitting drops or small streams at low pressure, volume, and velocity near or at ground level.

Even-numbered properties mean properties with addresses that end in even-numbered digits, and other properties so designated by the Director.

Inspection means an entry into and examination of premises for the purpose of ascertaining compliance with the requirements of this Division.

Installer means any Person that constructs, installs and/or repairs irrigation systems.

Irrigate or Irrigation means apply, or the application of, City water to outdoor soil or landscape surfaces.

Irrigation system means a device or combination of devices having a hose, pipe, or other conduit which transmits City water to outdoor soil or landscape surfaces.

Odd-numbered properties mean properties with addresses that end in odd-numbered digits, and other properties so designated by the Director.

Public Purpose Athletic or Recreational Field means an athletic or recreational field owned or leased by a public or not-for-profit entity which is operated for public use, through general invitation and is not operated for the purpose of profit.

Public Purpose Botanical Site means a site owned or leased by a public or not-for-profit entity in which a variety of plants are grown for scientific purposes or for education of the public.

Rain sensor means an automatic device that will override the irrigation cycle of an irrigation system and turn it off when a predetermined amount of rain has fallen or a moisture parameter is met that is equivalent to that amount of rain.

Runoff means City water which is not absorbed by the outdoor surface to which it is applied.

Soil moisture sensor means a calibrated automatic device that is designed to measure the quantity of water contained in a material, such as soil, on a volumetric or gravimetric basis and override the irrigation cycle of the irrigation system and turn it off when a pre-determined soil moisture level is reached.

User means any Person who is an owner or occupant of real property, whether inside or outside of the City, to which water is supplied by the City, or who uses water supplied by the City, or who is billed for water supplied by the City, or who is responsible for or otherwise has the right or permission to utilize water supplied by the City.

Water waste: refers to any non-beneficial use of City water.

Sec. 70-567. Mandatory irrigation efficiency requirements.

The following requirements are applicable to all Users:

(a) *Year Round Irrigation schedule for spray irrigation systems.*

(1) *Spray Irrigation.* Users shall not operate spray irrigation systems more than three days per week and shall follow the following irrigation schedule:

(A) Even-numbered properties may be irrigated only on Sundays, Wednesdays, and/or Fridays.

- (B) Odd-numbered properties may be irrigated only on Tuesdays, Thursdays, and/or Saturdays.
- (C) Irrigation may not occur between 10:00 a.m. and 6:00 p.m.
- (2) *Exemptions from Year Round Requirements.* The restrictions in (a) above shall not apply to the following:
 - (A) Properties using drip irrigation, hand watering, or tree or shrub watering bags;
 - (B) Watering of containerized plants and commercial plant stock in trade for sale;
 - (C) Outdoor irrigation necessary to establish newly sodded or seeded lawns or new non-turf plant materials within the first 45 days of planting provided that the customer secures a written license from Director, and prominently displays the license. A limit of two licenses per address per year may be issued, and licenses may be revoked for cause.
 - (D) Irrigation for a maximum of one day necessary when treatment with an application of chemicals requires immediate watering to preserve an existing landscape or to establish a new landscape, provided that such irrigation does not occur between the hours of 10:00 a.m. and 6:00 p.m.
 - (E) City water used to control dust or to compact soil when alternate methods are not available.
 - (F) Visually supervised operation of irrigation systems for short periods of time to check system condition and effectiveness.
 - (G) City water applied to prevent or abate health, safety, or accident hazards when alternate methods are not available.
 - (H) City water used for construction or maintenance activities where the application of water is the appropriate methodology and where no other practical alternative exists.
 - (I) Public purpose athletic fields, recreational fields, and botanical sites operated in compliance with a Water Conservation Plan that has been approved by the Director. The plan must specify the conservation measures and irrigation operating modes to be employed at the site year-round and during successive stages of a declared water shortage.

(b) *Sensor requirement for new and existing irrigation systems.*

Users and installers shall not install automatic irrigation systems of any type without a rain or soil moisture sensor that will prevent irrigation during periods of rainfall and when there is sufficient moisture in the ground for plant health and survival. Existing irrigation systems shall install a rain or soil moisture sensor by November 30, 2009.

(c) *Sensor settings.*

All rain sensors shall be adjusted and set so that they automatically shut off the irrigation system after not more than one-fourth (1/4) inch of rainfall has occurred or an equivalent moisture parameter is reached. All rain sensors shall be installed according to manufacturer's instructions in a location that will provide full exposure to rainfall or appropriate moisture parameter such that accuracy of operation is assured. All rain sensors shall be maintained in good working condition. No person shall adjust either the rain sensor or irrigation system so that the sensor is not able to override and turn off the irrigation system after one-fourth inch of rain has fallen or an equivalent moisture parameter is reached.

(d) *Hand operated equipment.*

All hoses used for hand watering, vehicle washing, or other allowable outdoor uses shall be equipped with shutoff nozzles.

(e) *System design.*

All irrigation systems shall be designed, maintained, and operated to prevent, to the extent practicable, water from flowing onto paved or other impervious surfaces.

Sec. 70-568. Prohibition of Water Waste.

No User shall:

- (a) Cause or allow run off of City water from landscape areas into adjoining impervious areas, adjacent property, or streets, sidewalks, gutters, stormwater drains, or other paved surfaces as a result of incorrectly directed or maintained sprinklers, irrigation systems, or other application devices, or excessive watering.
- (b) Cause or allow irrigation while precipitation is falling.
- (c) Knowingly allow water to escape through leaks, breaks or malfunction within the water user's plumbing or distribution system for any period of time beyond which such a leak or break should reasonably have been repaired or corrected. All leaks, breaks or malfunctions shall be corrected within 30 days of identification of the source of the leak.
- (d) Use or allow the use of water or flushing from any public or private fire hydrant for any purpose other than fire suppression, necessary fire hydrant or water distribution system maintenance, public emergency, or with prior approved written exception from the City.

- (e) Willfully or negligently waste water in a manner not otherwise prohibited above.
- (f) The prohibitions listed in the subsections above do not apply to:
 - (1) Water waste that occurs prior to June 1, 2009;
 - (2) Flow from firefighting, inspection of fire hydrants, fire training activities, or from similar government activities;
 - (3) Water applied to prevent or abate health, safety, or other hazards when reasonable alternate methods are not available; and
 - (4) Flow resulting from the inspection, operation, or maintenance of a public utility system.

Sec. 70-569. Violations, Enforcement, and Penalties

(a) *Violation.*

Noncompliance with the requirements of this Division 2 constitutes a violation, and is unlawful. Violations may be remedied through the provisions of this Section 70-569 or through any other civil and criminal remedies available under law. Remedies are not exclusive and may, without limitation, be exercised singly, in combination, or cumulatively.

(b) *Enforcement.*

The Director shall enforce the requirements of this Division, and shall issue notices, orders, assess penalties, and direct other actions as necessary. Among other things, the Director is authorized to remediate any violations and, pursuant to written guidelines, modify previously issued penalties.

(c) *Warnings; Notice of Violation*

- (1) *Warnings.* If a violation occurs, the Director shall issue one or more warnings. At least one written warning shall be issued prior to issuance of the first notice of violation requiring corrective action and/or assessing a penalty. Subsequent oral or written warnings are not required if the violation is for the same activity, or lack thereof, that resulted in previous violations and penalties.
- (2) *Notice of Violation.* If the violation does not cease after one or more warnings, the Director shall issue a written notice of violation to each responsible User. Such notice shall be given prior to ordering a corrective action, imposing a civil penalty, or terminating water service as the result of a violation.
- (3) *Service.* Notice shall be served by one of the following means: personal delivery; certified or registered mail, return receipt requested; any means authorized for service of documents by Rule 4 of the NC Rules of Civil Procedure; or first class mail addressed to the violator accompanied by posting of the notice at the violator's residence or

place of business, as may be appropriate.

- (4) *Contents.* The notice shall identify the location of the violation; the responsible User(s); the nature of the violation; the time period, if any, allowed for corrective action; a City contact person and contact information; the process and deadlines for contesting the violation; and a general description of potential enforcement actions available to the City, including but not limited to civil penalties and termination of water service.

- (d) *Civil Penalty and Discontinuation of Utility Service.* If, after issuance of notice of violation, the violation does not cease, the Director may assess civil penalties in accordance with the schedule below. Increasing civil penalties and utility termination may only be imposed if the violation is for the same activity, or lack thereof, that resulted in the previous warning or civil penalty, and occurs within two years of the City's previous action regarding the matter.

- (1) *Schedule of Progressive Steps and Penalties.*

The following actions and penalties may be imposed by the Director. Civil penalties may be assessed only after the time period for an appeal has expired, or after a determination on an appeal has been made.

- (A) First violation: Corrective Action.
- (B) Second violation: Civil penalty of \$100.00
- (C) Third violation: Civil penalty of \$250.00
- (D) Fourth violation: Termination of water service

- (2) *Discontinuance of water service.*

The city may discontinue water service to any property upon the fourth violation, or upon nonpayment of the civil penalties that have been added to the User's utility bills pursuant to (e) below. If termination is for a fourth violation, a notice of violation shall be sent as described above. If it is for nonpayment, the notice and procedures otherwise applicable in City ordinance shall apply. Service reconnection shall only be allowed upon payment of any past due utility bills, including but not limited to civil penalties and reconnection charges.

- (e) *Assessment of Penalties.*

Notice of civil penalties imposed shall be given by first class mail, and may subsequently be added to the violator's utility bills.

Sec. 70-570. Variances and Appeals

- (a) *Variance*

- (1) Administrative variances of the restrictions in this Division may be issued by the Director provided that the general intent of this Division is met, compliance is proven to cause practical difficulties and unnecessary hardship, and all reasonable options for abatement through modified water management have been exhausted. The criteria to determine hardship shall include but not be limited to the level of capital outlay and time required to achieve compliance.
- (2) Variances may be issued for a time-limited period, and shall stipulate both short-term corrective measures and a schedule for completion of long-term corrective measures. Variances may be renewed for good cause shown.

(b) *Appeal.*

- (1) *Time for Appeal.* A User may appeal a determination of a violation, or any penalty for violation to the Director by filing an appeal within seven (7) calendar days of receiving a notice of violation. The appeal shall identify the property and state the grounds of appeal together with all material facts in support thereof. Violations already appealed may not be appealed again if a determination regarding the contested facts has already been made.
- (2) *Meeting.* A User who appeals shall be offered the opportunity for a meeting with the Director, and may present any information in addition to that presented in writing. Notice of the meeting time shall be sent certified or registered mail, return receipt requested.
- (3) *Decision.* The decision of the Director shall be in writing and shall explain the basis for the decision, and the penalty imposed. If corrective action is ordered, the Director shall specify the time frame during which it must be taken so as to avoid additional penalties.

Sec. 70-571. Relationship to Water Shortage Stages

The requirements of this Division may be superseded by a declaration of a Water Supply Shortage or Emergency, or by mandatory water restrictions set forth in Division 1 of Article VI.